RADM NORTH'S OPENING REMARKS

SAFETY OF LARGE PASSENGER VESSELS

16 May, 2000

INSTITUTE OF MARINE ENGINEERS

LONDON, ENGLAND

INTRO

GOOD AFTERNOON I APPRECITE THE OPPORTUNITY TO APPEAR BEFORE YOU TODAY. THANKS TO OUR SPONSORS – THE INSTITUTE OF MARINE ENGINEERS AND THE MARITIME AND COASTGUARD AGENCY FOR ORGANIZING THIS VERY IMPORTANT EVENT.

SO FAR AT THIS CONFERENCE, WE HAVE HAD A LOOK INTO THE FUTURE AND A PANEL ON DESIGN. THIS AFTERNOON THIS LAST PANEL ROUNDS OUT THE DISCUSSION BY CONSIDERING OPERATIONS AND EQUIPMENT. WE ARE ASKED THE FOLLOWING QUESTIONS:

- WHAT INVESTIGATIONS AND ANALYSES OF OPERATIONAL PROCEDURES SHOULD BE CARRIED OUT TO ENHANCE SAFE OPERATION?;
- ARE ON BOARD EMERGENCY PROCEDURES AGREED THAT CAN COPE WITH THE LARGE NUMBERS OF PASSENGERS?;
- SIMILARLY, ARE THE AUTHORITIES THAT ARE RESPONSIBLE FOR SEARCH AND RESCUE AND BEYOND PREPARED FOR SUCH AN EMERGENCY?; AND –
- IS THE COVERAGE AND INTEGRATION OF THESE AUTHORITIES ADEQUATE?

AFTER I DO A BIT OF SCENE SETTING, OUR SPEAKERS WILL RESPOND WITH THE VIEWS OF THE NATIONAL REGULATOR, THE CLASS ASSESSOR, AND THE COAST GUARD. FOLLOWING A DISCUSSION AND TEA WE WILL HEAR ABOUT EVACUATION SYSTEMS AND SAFETY EQUIPMENT AND HAVE ANOTHER DISCUSSION. SINCE WE WILL HAVE DISCUSSION PERIODS FOR OUR PRESENTATION, PLEASE HOLD YOUR QUESTIONS FOR THOSE TIMES. NOW, LET ME PUT THESE QUESTIONS IN SOME CONTEXT.

MR. O'NEIL CITED A NUMBER OF MAJOR EVACUATIONS FROM CRUISE SHIPS: PRISENDAM, OCEANOS, ACHILLE LAURO, MONARCH OF THE SEAS, AND THE SUN VISTA TO NAME A FEW. ALL OF THESE VESSELS WERE ULTIMATELY EVACUATED SUCCESSFULLY, HOWEVER, MOST WERE SMALLER IN PASSENGER CAPACITY THAN VESSELS IN SERVICE TODAY AND ALTHOUGH ALL WERE SERIOUS CASES, THEY DID COLLECTIVELY ENJOY GOOD WEATHER AND/OR CLOSE PROXIMITY TO ASSISTANCE. <u>THEY WERE NOT WORST CASE SCENARIOS.</u>

CLEARLY, WE MUST BE PREPARED FOR THE WORST CONDITIONS POSSIBLE IF THE TIME COMES WHEN WE MUST RESPOND TO 5000 PERSONS OR MORE THAT MUST BE EVACUATED FROM A PASSENGER SHIP, AT NIGHT, IN POOR WEATHER, WITH NO OTHER VESSELS NEARBY, IN A VERY REMOTE, UNDEVELOPED, PORTION OF THE WORLD. WHAT WE DO TODAY MUST ENSURE THE SUCCESS OF TOMORROW'S EVACUATION.

BEFORE I INTRODUCE TODAY'S FIRST SPEAKER, I WOULD LIKE TO REFRESH IN YOUR MINDS SOME THOUGHTS ABOUT ONE PARTICULAR CRUISE SHIP EVACUATION THAT CERTAINLY HOLDS LESSONS FOR US HERE TODAY: THE PRISENDAM. THE TWENTY YEAR OLD SEA STORY OF THE PRISENDAM AFFORDS IMPORTANT INSIGHTS INTO THE ISSUES.

PRISENDAM

A FIRE WAS RAGING IN THE ENGINE ROOM OF THE PRISINDAM IN THE MIDDLE OF THE GULF OF ALASKA WHEN THE FIRST DISTRESS MESSAGE WAS RECIEVED. THE SHIP HAD LOST ALL POWER, WATER PRESSURE, AND FIRE FIGHTING CAPABILITIES. MORE THAN 500 PEOPLE WERE PREPARING TO EVACUATE INTO LIFEBOATS. MOST OF THE PASSENGERS WERE ELDERLY; MANY WERE INFIRM. HELP WAS HOURS AWAY. THE WEATHER WAS BEGINNING TO DETERIORATE. THE SITUATION WAS VERY SERIOUS.

THE U.S. COAST GUARD RESPONDED IMMEDIATELY WITH AIRCRAFT AND CUTTERS AS DID THE U.S. AIR FORCE AND CANADIAN FORCES. SO DID SEVERAL MERCHANT SHIPS, INCLUDING THE TANKER WILLIAMSBURG, WHICH PROVED ITSELF INDISPENSABLE BOTH AS A STABLE PLATFORM FOR HELICOPTERS AND A REFUGE FOR PEOPLE LIFTED FROM THE LIFEBOATS. THE COORDINATED EFFORTS OF ALL THESE RESCUERS SUCCEEDED IN BRINGING EVERY PASSENGER AND CREWMEMBER TO SAFETY WITHOUT SERIOUS INJURY OR LOSS OF LIFE IN APPROXIMATELY TWENTY-FOUR HOURS. BUT CONTRAST THE SCOPE OF THIS PROBLEM – ONE TENTH OF THE NUMBER OF PEOPLE WE'RE CONTEMPLATING TODAY.

PRINSENDAM WAS STILL A RELATIVELY NEW SHIP WHEN IT CAUGHT FIRE. WHEN HOLLAND AMERICA LINES HAD THE SHIP BUILT SEVEN YEARS EARLIER, IT HAD PROPERLY ENSURED THAT PRINSENDAM CONFORMED TO THE LATEST IMO FIRE PROTECTION STANDARDS.

THOSE STANDARDS INCORPORATED THE BEST INNOVATIVE FIRE PROTECTION TECHNOLOGY OF THE DAY.

DURING THE RESCUE OPERATION, THE COAST GUARD'S CHIEF FIRE PROTECTION ENGINEER WAS ON THE PHONE TO THE RESCUE COORDINATION CENTER THROUGHOUT THE RESCUE OPERATION. KNOWING WHERE THE FIRE STARTED, HE WAS ABLE TO PREDICT WITH A SURPRISING DEGREE OF DETAIL AND ACCURACY HOW LONG IT WOULD TAKE THE FIRE TO SPREAD FROM COMPARTMENT TO COMPARTMENT.

THIS SPECIFIC KNOWLEDGE OF HOW FIRE PROTECTION STANDARDS WOULD APPLY TO THE PRINSENDAM GAVE THE RESCUERS THE CONFIDENCE TO CONDUCT THE EVACUATION WITHOUT AN EXCESSIVE URGENCY THAT COULD HAVE FURTHER ENDANGERED EITHER OUR RESCUE PERSONNEL OR THE PASSENGERS AND CREW OF THE PRINSENDAM. IT PERMITTED, NOT A LEISURELY, BUT WELL PACED RESPONSE.

LEADERSHIP, INNOVATION, & COOPERATION

IT IS REMARKABLE THAT THIS CASE WAS CONCLUDED WITHOUT SERIOUS INJURIES OR FATALITIES.

IT MAY SEEM ODD TO THINK OF THE BURNING AND SINKING OF A SHIP AS A SUCCESS STORY, BUT IN ONE RESPECT, THIS CASE WAS A SPECTACULAR SUCCESS. LIVES WERE SAVED BECAUSE FIRE PROTECTION STANDARDS EXISTED, BECAUSE THOSE STANDARDS WERE EXPLAINED TO THE RESCUE COORDINATORS, AND BECAUSE THE SHIPS PERFORMED ACCORDING TO THE SPECIFICATIONS.

NOT ONE PASSENGER BOARDING PRISENDAM THOUGHT TO ASK IF THE SHIP WAS BUILT TO PREVENT THE RAPID SPREAD OF A FIRE. EVERY SINGLE ONE OF THEM TRUSTED THAT SHIP WOULD BE SAFE. AND THE REASON THE SHIP WAS SAFE—SAFE ENOUGH TO KEEP THE PASSENGERS ALIVE—WAS THAT THREE POWERFUL FORCES WERE AT WORK LONG BEFORE SHIPS SET SAIL. <u>THOSE THREE FORCES ARE LEADERSHIP, INNOVATION, AND COOPERATION.</u>

THE FIRST OF THESE IS LEADERSHIP. ONE OF OUR MOTIVATIONAL WRITERS HAS SAID THAT, “A LEADER IS ONE WHO SEES <u>MORE</u> THAN OTHERS SEE, WHO SEES <u>FARTHER</u> THAN OTHERS SEE, AND SEES <u>BEFORE</u> THEY DO.” THAT VISION IS THE ESSENCE OF LEADERSHIP IN MARITIME SAFETY.

THE LIVES ON THESE PASSENGER VESSELS WERE ACTUALLY SAVED YEARS EARLIER WHEN VISIONARY LEADERS SAW THE NEED TO PROTECT PASSENGERS AGAINST ACCIDENTS LIKE THESE. BY ADDRESSING THE ISSUE YEARS EARLIER, THEY GAVE THE RESCUE CREWS AND THEREFORE THE PASSENGERS AND CREW A CHANCE.

WE HAVE THE SAME OPPORTUNITY TODAY, AND BEGINNING THIS WEEK AT IMO, TO SEE MORE, TO SEE FARTHER, AND TO SEE SOONER. AS WE CONSIDER THE SAFETY IMPLICATIONS OF THE MEGA-SHIPS NOW IN SERVICE AND ON THE DRAWING BOARDS.

WHICH BRINGS ME TO THE SECOND FORCE: INNOVATION, SPECIFICALLY TECHNOLOGICAL INNOVATION.

THE ARRAY OF CHALLENGES WE ANTICIPATE FACING OVER THE NEXT GENERATION WILL CALL FOR EVEN GREATER INNOVATION THAN THAT EMPLOYED IN DESIGNING PRISENDAM. AS SAFETY PROBLEMS EVOLVE, THEY LIKELY REACH A POINT AT WHICH DOING MORE OF WHAT WORKED BEFORE NO LONGER MAKES SENSE. NEW RISKS—AND COMPLEXITIES ASSOCIATED WITH EXISTING RISKS—CALL FOR NEW STRATEGIES. WE WANT TO AVOID EXTRAPOLATING CURRENT REGULATIONS, CURRENT STANDARDS, AND CURRENT PRACTICES UNTIL THEY SNAP.

WHEN WE CONTEMPLATE THE GROWTH OF VESSEL PASSENGER CAPACITY AND THE INDUSTRY ITSELF, IT QUICKLY BECOMES CLEAR, UNDERSCORED BY OUR SPEAKERS YESTERDAY AND TODAY, THAT THE SAFETY CHALLENGES ASSOCIATED WITH THAT INCREASED VOLUME WILL NOT BE ADDRESSED SIMPLY BY REVIEWING AND UPDATING WHATEVER REGULATIONS AND PROCEDURES ARE NOW ON THE BOOKS.

WE NEED INNOVATIVE APPROACHES BOTH TO THE PROBLEMS WE ANTICIPATE AND TO THE ONES THAT CATCH US BY SURPRISE. THE PROBLEMS WE FACE REQUIRE LEADERSHIP AND INNOVATION. AND THEY REQUIRE COOPERATION.

THE STANDARDS IN PLACE WHEN THE PRINSENDAM WAS BUILT WERE THE RESULT OF COOPERATIVE AGREEMENTS TO IMPLEMENT INNOVATIONS THAT WERE ENABLED BY VISIONARY LEADERSHIP.

LEADERSHIP, INNOVATION, AND COOPERATION ARE THE FORCES THAT KEPT THE PRINSENDAM RESPONSE SUCCESSFUL. THEY ARE AT WORK NOW TO CONTINUE IMPROVING MARITIME SAFETY. AND THEY ARE THE FORCES THAT WILL ALLOW US TO FULFILL THE TRUST PLACED IN US TO PROVIDE SAFETY FOR THE NEXT GENERATION.

CONCLUSIONS

AS WE LISTEN TO OUR SPEAKERS TODAY PLEASE THINK OF THE PRISENDAM AND OF LEADERSHIP, INNOVATION, AND COOPERATION. EVERY PERSON WHO BOARDS ANY TYPE SHIP IS PLACING THEIR SAFETY AND TRUST WITH WHAT WE DO. IT IS AN AWESOME RESPONSIBILITY – AND WE MUST MEET THAT CHALLENGE.

FIRST SPEAKER

TO SAVE SOME TIME I'LL INTRODUCE ALL OF OUR SPEAKERS TO YOU NOW.

OUR FIRST SPEAKER TODAY IS MR. DAVID WRIGHT FROM THE MARITIME AND COASTGUARD AGENCY WHERE HE IS THE HEAD OF THE SHIP CONSTRUCTION DIVISION. MR. WRIGHT SERVED FOR 17 YEARS IN THE ROYAL NAVY AS AN ENGINEER OFFICER BEFORE WORKING AS A MARINE SURVEYOR. HE HAS WORKED EXTENSIVELY ON THE INTERNAL FORMAL SAFETY ASSESSMENT PROJECT PRIOR TO BEING PROMOTED TO HIS CURRENT POSITION.

OUR 2ND PRESENTATION FOCUSES ON PREPARING FOR THE UNEXPECTED FROM THE CLASS ASSESSOR. DR. DAVID ALDWINCKLE AND CAPT ANDY MITCHELL FROM LLOYDS REGISTER ARE HERE TODAY AS OUR PRESENTERS. DR. ALDWINCKLE IS THE MANAGER AND SENIOR PRINCIPLE SURVEYOR OF THE RISK DEPARTMENT WITH LLOYD'S REGISTER. HE HAS BEEN DEEPLY ASSOCIATED WITH THE DESIGN, CONSTRUCTION, AND OVERSIGHT OF ALL TYPES OF VESSELS FOR WELL OVER 40 YEARS. CURRENTLY IN HIS LENGTHY AND DEDICATED CAREER, HE ALSO SERVES AS IACS CHAIRMAN FOR FORMAL SAFETY ASSESSMENTS.

CAPT ANDY MITCHELL IS RAPIDLY APPROACHING 40 YEARS SERVICE IN THE MARINE INDUSTRY MOSTLY AS A MASTER OF NUMEROUS VESSELS. HE IS CURRENTLY THE LLOYD'S MANAGER OF MARINE QUALITY SERVICES WHICH HAS THE RESPONSIBILITY FOR ISM CERTIFICATION. IN ADDITION TO HIS CURRENT DUTIES HE ALSO REPRESENTS LLOYD'S ON VARIOUS INTERNATIONAL COMMITTEES AND IS THE CHAIRMAN OF THE IACS COMMITTEE ON THE ISM CODE.

OUR LAST PRESENTER BEFORE OUR FIRST DISCUSSION PERIOD AND TEA WILL BE – CDR TIM CLOSE. CDR CLOSE IS A 1982 GRADUATE FROM THE U.S. COAST GUARD ACADEMY. FOLLOWING AN TOUR ABOARD A CUTTER AS THE ASSISTANT ENGINEERING OFFICER HE ATTENDED THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY EARNING ADVANCED DEGREES IN NAVAL ARCHITECTURE AND MECHANICAL ENGINEERING. HE HAS SERVED AT SEVERAL MARINE SAFETY OFFICES IN VARIOUS CAPACITIES, MOST RECENTLY AS EXECUTIVE OFFICER IN CLEVELAND, OHIO. CDR CLOSE CURRENTLY SERVES AS THE CHIEF OF THE HUMAN ELEMENT AND SHIP DESIGN DIVISION AT COAST GUARD HEADQUARTERS AND HAS HELD THAT POSITION SINCE 1998.

WELCOME BACK. WE WILL NOW TAKE A LOOK AT A NEW APPRAOCH TO MARINE EVACUATION SYSTEMS. MR. IAIN MCLEAN IS A 1991 GRADUATE OF QUEENS UNIVERSITY WITH A DEGREE IN MECHANICAL ENGINEERING. AFTER EXPERIENCE ON A NUMBER OF DIFFERENT PROJECTS FOR RFD, HE JOINED THE MARINE ARK DEVELOPMENT TEAM AT BEGINNING OF ITS DEVELOPMENT. HE HAS BEEN WITH THE PROJECT THROUGH THE VARIOUS STAGES OF DEVELOPMENT, TESTING, APPROVAL, AND PRODUCTION. MR. MCLEAN CURRENTLY SERVES AS THE TECHNICAL MANAGER FOR THE MARINE ARK PROJECT.

FINALLY TODAY WE HEAR ABOUT FIRE PROTECTION FROM MR. ANTHONY TURNER FROM MARIOFF CORPORATION OF FINLAND. MR. TURNER IS CURRENTLY THE TECHNICAL MARKETING CONSULTANT FOR MARIOFF WHICH MANUFACTURERS THE HI-FOG WATER MIST FIRE PROTECTION SYSTEM. MR. TURNER ALSO WORKS WITH SEVERAL RENEWABLE ENERGY PROJECTS AS WELL AS SETTING UP THE UK 'WAVE AND TIDAL POWER INTEREST GROUP'.

DISCUSSION AND Q & A

AT THIS TIME LET ME SUMMARIZE WHAT WE HAVE DISCUSSED HERE TODAY.

IT IS NOW MY PLEASURE TO INTRODUCE MR. BUD STREETER WHO WILL SUMMARIZE THE ENTIRE CONFERENCE.

MR. STREETER IS THE DIRECTOR GENERAL OF TRANSPORT CANADA. HE BEGAN HIS CAREER AT THE CANADIAN COAST GUARD COLLEGE WITH A DEGREE IN MARINE ENGINEERING AND HAS HELD NUMEROUS POSITIONS BOTH WITHIN THE CANADIAN COAST GUARD AND MARINE INDUSTRY IN CANADA. WHILE HOLDING THE POSITION OF VICE PRESIDENT OF SAFETY AND REGULATORY AFFAIRS AT MARINE ATLANTIC, A LARGE CANADIAN FERRY OPERATOR, MR STREETER WAS APPOINTED TO HIS CURRENT POSITION AND HAS SERVED AS THE DIRECTOR GENERAL OF TRANSPORT CANADA SINCE 1996